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Part II

Environmental Protection Agency

Standards of Performance for New Stationary Sources; Petroleum Refinery Claus Sulfur Recovery Plants

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[FRL 1331-5]

Standards of Performance for New Stationary Sources; Petroleum Refinery Claus Sulfur Recovery Plants; Amendment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action deletes the requirement that a Claus sulfur recovery plant of 20 long tons per day (LTD) or less must be associated with a "small petroleum refinery" in order to be exempt from the new source performance standards for petroleum refinery Claus sulfur recovery plants. This action will result in only negligible changes in the environmental, energy, and economic impacts of the standards.

EFFECTIVE DATE: October 25, 1979.

ADDRESS: All comments received on the proposal are available for public inspection and copying at the EPA Central Docket Section (A-130), Room 2903B, Waterside Mall, 401 M Street, S.W., Washington, D.C. 20460. The docket number is OAQPS-79-10.

FOR FURTHER INFORMATION CONTACT: Don R. Goodwin, Director, Emission Standards and Engineering Division (MD-13), Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5271.

SUPPLEMENTARY INFORMATION:

Background

On March 15, 1978, EPA promulgated new source performance standards for petroleum refinery Claus sulfur recovery plants. These standards did not apply to Claus sulfur recovery plants of 20 LTD or less associated with a small petroleum refinery, 40 CFR 60.100 (1978). "Small petroleum refinery" was defined as a "petroleum refinery which has a crude oil processing capacity of 50,000 barrels per stream day or less, and which is owned or controlled by a refiner with a total combined crude oil processing capacity of 137,500 barrels per stream day or less," 40 CFR 60.101(m) (1978).

On May 12, 1978, two oil companies filed a Petition for Review of these new source performance standards. One issue was whether the definition of "small petroleum refinery" was unduly restrictive.

On March 20, 1979, EPA proposed to amend the definition of "small petroleum refinery" by deleting the requirement that it be "owned or controlled by a refiner with a total combined crude oil processing capacity of 137,500 barrels per stream day (BSD) or less," 44 FR 17120. This proposal would have had a negligible effect on sulfur dioxide (SO_2) emissions, costs, and energy consumption. The oil company petitioners agreed to dismiss their entire Petition for Review if the final regulation did not differ substantively from this proposal.

EPA provided a 60 day period for comment on the proposal and the opportunity for interested persons to request a hearing. The comment period closed May 21, 1979. EPA received six written comments and no requests for a hearing.

Summary of Amendment

The promulgated amendment deletes the requirement that a Claus sulfur recovery plant of 20 LTD or less must be associated with a "small petroleum refinery" in order to be exempt from the new source performance standards for such plants. Thus, the final standard will apply to any petroleum refinery Claus sulfur recovery plant of more than 20 LTD processing capacity. This amendment will apply, like the standards themselves, to affected facilities, the construction or modification of which commenced after October 4, 1976, the date the standards of performance for petroleum refinery Claus sulfur recovery plants were proposed.

Environmental, Energy, and Ecomonic Impacts

The promulgated amendment will result in a negligible increase in nationwide sulfur dioxide emissions compared to the proposed amendment and the existing standard. The promulgated amendment will also have essentially no impact on other aspects of environmental quality, such as solid waste disposal, water pollution, or noise. Finally, the promulgated amendment will have essentially no impact on nationwide energy consumption or refinery product prices.

Summary of Comments and Rationale

All six comments received were from the petroleum refinery industry. Two commenters expressed agreement with the proposal. The other four also were not opposed to the proposal, but felt the definition of "small petroleum refinery" was still too restrictive, as explained below.

Two of the four argued for deletion of the 50,000 BSD refinery size cutoff and also that sulfur recovery plant size was not only a function of refinery size (as they felt EPA had apparently assumed in establishing the refinery size cutoff), but depended on such factors as the crude oil sulfur content and actual crude oil throughput.

The other two commenters, each planning to construct small Claus sulfur recovery plants, objected that the environmental benefits of subjecting small Claus sulfur recovery plants to the standards was not substantial even when a Claus sulfur recovery plant was associated with a petroleum refinery of more that 50,000 BSD capacity. EPA agrees. Accordingly, EPA believes it is appropriate under the circumstances to delete the refinery size requirement.

Thus, the promulgated standard would exempt from coverage by the standards any Claus sulfur recovery plant of 20 LTD or less. Alternatively, the standards of performance for petroleum refinery Claus sulfur recovery plants would apply to all plants of more than 20 LTD processing capacity.

Deletion of the refinery size requirement from the standards will not result in a significant increase in the emissions of SO_2 from petroleum refinery Claus sulfur recovery plants. This is due to the small number of small Claus sulfur recovery plants (i.e., 20 LTD or less capacity) that are likely to be built at refineries of more than 50,000 BSD and the fact that most of these exempted plants will still be required by State regulations to achieve 99.0 percent control of SO_2 (compared to the 99.9 percent control required for large Claus sulfur recovery plants). In many cases the exempted Claus sulfur recovery plants would be required to achieve greater than 99.0 percent control of SO_2 due to prevention of significant deterioration (PSD) requirements. This change will also result in a negligible decrease in costs and essentially no impact on energy and economic impacts, compared to the proposed amendment.

Docket

Docket No. OAQPS-79-10, containing all supporting information used by EPA, is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section, Room 2903B (see ADDRESS Section of this preamble).

The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can intelligently and effectively participate in the rulemaking process. Along with

the statement of basis and purpose of the promulgated rule and EPA responses to comments, the contents of the dockets will serve as the record in case of judicial review [Section 307(d)(a)].

Miscellaneous

The effective date of this regulation is October 25, 1979. Section 111(b)(1)(B) of the Clean Air Act provides that standards of performance become effective upon promulgation and apply to affected facilities, construction or modification of which was commenced after the date of proposal on October 4, 1976 (41 FR 43866).

EPA will review this regulation four years from the date of promulgation. This review will include an assessment of such factors as the need for integration with other programs the existence of alternative methods, enforceability, and improvements in emission control technology.

It should be noted that standards of performance for new stationary sources established under Section 111 of the Clean Air Act reflect: "* * * application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." [Section 111(a)(1)]

Although there may be emission control technology available that can reduce emissions below those levels required to comply with standards of performance, this technology might not be selected as the basis of standards of performance due to costs associated with its use. Accordingly, standards of performance should not be viewed as the ultimate inachievable emission control. In fact, the Act requires (or has potential for requiring) the imposition of a more stringent emission standard in several situations.

For example, applicable costs do not play as prominent a role in determining the "lowest achievable emission rate" for new or modified sources locating in nonattainment areas, i.e., those areas where statutorily mandated health and welfare standards are being violated. In this respect, Section 173 of the Act requires that a new or modified source constructed in an area which exceeds the National Ambient Air Quality Standard (NAAQS) must reduce emissions to the level which reflects the "lowest achievable emission rate" (LAER), as defined in Section 171(3), for such category of source. The statute defines LAER as that rate of emissions based on the following, whichever is more stringent:

(A) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or

(B) the most stringent emission limitation which is achieved in practice by such class or category of source. In no event can the emission rate exceed any applicable new source performance standard [Section 171(3)].

A similar situation may arise under the prevention of significant deterioration of air quality provisions of the Act (part C). These provisions require that certain sources [referred to in Section 169(1)] employ "best available control technology" [as defined in Section 169(3)] for all pollutants regulated under the Act. Best available control technology (BACT) must be determined on a case-by-case basis, taking energy, environmental, and economic impacts and costs into account. In no event may the application of BACT result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to Section 111 (or 112) of the Act.

In all events, State implementation plans (SIP's) approved or promulgated under Section 110 of the Act must provide for the attainment and maintenance of NAAQS designed to protect public health and welfare. For this purpose, SIP's must in some cases require greater emission reductions than those required by standards of performance for new sources.

Finally, States are free under Section 116 of the Act to establish even more stringent emission limits than those established under Section 111 or those necessary to attain or maintain the NAAQS under Section 110. Accordingly, new sources may in some cases be subject to limitations more stringent than EPA's standards of performance under Section 111; and prospective owners and operators of new sources should be aware of this possibility in planning for such facilities.

Section 317 of the Clean Air Act requires the Administrator to, among other things, prepare an economic assessment for revisions to new source performance standards determined to be substantial. Executive Order 12044 requires certain analyses of significant regulations. Since this amendment lacks the economic impact and significance to require additional analyses, it is not subject to the above requirements.

Dated: October 16, 1979.

Douglas M. Costle,

Administrator.

Part 60 of chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

1. § 60.100 is amended by revising paragraph (a), as follows:

§ 60.100 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) * * *

2. § 60.101 is amended by revoking and reserving paragraph (m), as follows:

§ 60.101 Definitions

* * * * *

(m) [Reserved]

(Sec. 111, 301(a), Clean Air Act as amended [42 U.S.C. 7411, 7601(a)].)

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